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California Regional Office
201 Mission St, 4th Floor
San Francisco, CA 94105

Tel (415)816-4590
Fax (415)777-0244
nature.org

September 3, 2010

Ms. Barbara Bamberger
California Air Resources Board
1001 I Street
Sacramento, CA 95812

RE: Comments on Sector Based Crediting and Subnational Reduction of Emissions from International Deforestation and Degradation

Dear Ms. Bamberger:

The Nature Conservancy (TNC) appreciates the opportunity to submit comments in response to The California Air Resources Board (CARB) July 30th workshop on subnational and sector-based crediting to reduce emissions from deforestation and degradation (REDD). TNC supports CARB's consideration to include REDD credits as part of California's cap and trade program, as the inclusion of such credits will help address a significant source of global emissions, contain the overall cost of California's GHG reduction program and establish a significant precedent for federal and international climate policy. TNC has over 15 years experience designing and implementing forest carbon projects and policy domestically and internationally and offers the following technical comments and recommendations in response to the workshop:

Summary of recommendations:

1) CARB's initial REDD design should include jurisdictional accounting and crediting of REDD that includes reducing both degradation and deforestation
2) Jurisdictions should also be permitted to and should ultimately include jurisdictional accounting and crediting for increases in sequestration through reforestation and forest restoration provided that deforestation and degradation rates are also being reduced
3) Jurisdictional deforestation and degradation reference levels should be based on annual historic gross deforestation and degradation rates
4) A net zero emissions target for jurisdictions should be established for 2030 with interim targets tied to decreased emissions and forest cover, commensurate with California's 2020 target
5) TNC recommends a crediting baseline that is based on the established reference levels with downward adjustments every 5 years; in the event such an approach is not feasible, CARB should consider a sliding scale crediting approach to meet and exceed a crediting baseline
6) The provision of credits to jurisdictions is an essential incentive to encourage and enable jurisdictions to undertake efforts to comprehensively account for and achieve reductions in overall deforestation and degradations rates; in the absence of such an approach CARB should

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explore other incentives such as revenue sharing and insurance payments that might serve as adequate incentives for jurisdictions

7) Primary liability for the integrity of REDD credits should remain with buyers/capped entities since California has jurisdiction over these entities and enforce reduction obligations; risks to buyers should be minimized through the requirement of buffers and insurance, which should also minimize reversal and enforcement risks to California in the event the program permits credits to be issued to REDD jurisdictions

ARB should design a REDD+ program that includes jurisdictional accounting and crediting for avoided emissions from international deforestation and degradation as well as increased sequestration

TNC supports CARB's focus on curtailing emissions due to deforestation. Given the significant emissions that also result from forest degradation,[1] TNC urges CARB to design a REDD program that will also include reduced emissions from forest degradation. Ultimately, jurisdictions should be permitted to include increased GHG removals from sequestration activities, such as reforestation and restoration.

Based on extensive literature review and practical experience, TNC, the Rainforest Alliance and the Forest Stewardship Council have found that forest degradation represents at least 20 percent of total forest carbon emissions.[2] Furthermore, degradation is often a precursor to additional emissions from deforestation.[3] Thus, designing a REDD program to include not only deforestation but forest degradation would most effectively address forest carbon emissions in jurisdictions that are experiencing significant deforestation. Furthermore, reliable greenhouse gas accounting methodologies exist to effectively track major forms of forest degradation, such as selective logging and partial canopy fires.[4] These impacts can be measured and monitored through the use of free satellite imagery (e.g., Landsat) and plot level data, and the same historical remote sensing data used to establish reference level deforestation may be used to incorporate degradation.

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[1] For the purposes of these comments, forest degradation refers to *a direct, human-induced reduction in the forest carbon stocks from the natural carbon carrying capacity of natural forest ecosystems which persists for a specified performance period and does not qualify as deforestation.* See Griscom, B. et al. 2009. The Hidden Frontier of Forest Degradation: A Review of the Science, Policy and Practice of Reducing Degradation Emissions. The Nature Conservancy, Rainforest Alliance and the Forest Stewardship Council. Arlington, VA.

[2] Griscom, B. et al. 2009. " The Hidden Frontier of Forest Degradation: A Review of the Science, Policy and Practice of Reducing Degradation Emissions." The Nature Conservancy, Rainforest Alliance and the Forest Stewardship Council. Arlington, VA.

[3] Id.

[4] Asner, G.P. et al. 2005. Selective Logging in the Brazilian Amazon. *Science* 310: 480-482; Souza Jr., C. et al. 2005. Combining spectral and spatial information to map canopy damage from selective logging and forest fires. *Remote Sensing of Environment* 98: 323-343.

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Ultimately, a REDD program under AB 32 should be comprehensive and include jurisdictional accounting and crediting for activities that both reduce GHG emissions from deforestation and degradation as well as increases in forest carbon sequestration through activities such as reforestation and restoration. The provision of credit and incentives for these additional activities could lead not only to increased removals of carbon dioxide from the atmosphere, but they could also lead to decreased pressure to degrade or remove intact forests. Crediting for these activities, however, should be conditioned on maintaining or decreasing historic emissions from deforestation and degradation. This comprehensive approach to jurisdictional accounting and crediting, or "REDD+", would accommodate and be compatible with CARB considerations to include a pathway for international forest projects in the early stages of a cap and trade program.

Jurisdictional baseline reference levels should be established based on historic averages of gross deforestation and degradation

Jurisdictional reference levels for deforestation and degradation should be based on the average of annual historic rates of deforestation (within the 5 to 10 year period prior to 2010), as defined and discussed in the comments submitted by the Environmental Defense Fund and Conservation International on August 20, 2010. These rates should be based on <u>gross</u> deforestation and degradation rates to ensure that accounting and ultimately, crediting, prevent the degradation and deforestation of intact forests and data is not conflated with reforestation and sequestration activities.

A target of net zero emissions by 2030 should be established for participating jurisdictions, with appropriate interim benchmarks by 2020 that are also tied to forest cover

TNC supports the establishment of a net zero forest emissions target for jurisdictions that provide credits to California's cap and trade program. The target may be net so long as progress for gross deforestation/degradation is tracked separately from any increases in sequestration (e.g., reforestation and improved forest management).

However, since California's overall GHG reduction target under AB 32 is established for 2020, ARB should establish interim targets for participating jurisdictions for 2020 and prior to that date to monitor progress effectively. While these interim targets may be expressed in terms of net emissions, these targets should also be expressed in terms of canopy cover and related forest carbon stocks, as emissions do not necessarily reflect standing forest carbon stocks and the ongoing sequestration function that standing forests provide.

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ARB should design the jurisdictional crediting baseline and approach in a manner that provides immediate incentives for jurisdictions and the private sector to undertake REDD activities

TNC understands the rationale of CARB's initial proposal to create a crediting threshold at 25% and 50% below the jurisdictional reference levels for deforestation and degradation. However, while we agree that it is critical for jurisdictions to undertake actions to reduce emissions, the crediting thresholds, as suggested would create a significant hurdle that would likely serve as a disincentive for jurisdictions or the private sector to take action. TNC believes the jurisdictional reference levels (discussed earlier) would also serve as adequate crediting baseline levels with incremental 5 year adjustments as described in the August 20th comments submitted by EDF and CI.

However, if such an approach is not feasible, CARB could approach crediting on a proportional basis relative to a full crediting threshold. In other words, CARB could allow for proportional/sliding scale crediting that does not achieve full crediting until the crediting baseline threshold is met. Under a full crediting threshold approach, ARB could set a crediting baseline for reduction in deforestation and degradation rates at around 10% below reference levels. However, under such a scenario, a percentage of credits (albeit not 100%) for decreases in rates could still be issued between the reference level and crediting threshold. As the deforestation and degradation reduction rates approach the crediting baseline, the percentage or proportion of credits issued to reductions could increase to act as an incentive to meet and exceed this threshold. Once the overall threshold is met, reductions would be credited 100%.

TNC also understands that part of CARB's baseline crediting design is an effort to limit credit liability and enforcement activities to the private sector, which means that jurisdictions may not generate credits that can be sold subsequently into California's cap and trade program. The challenge for CARB under such a scenario is that credit revenue is the incentive to encourage and fund reductions that both jurisdictions and the private sector can effect. Providing direct credits to jurisdictions is also critical to creating incentives to make jurisdiction-wide interventions that fundamentally reshape land-use decisions across the whole jurisdiction, which is essential to the effectiveness and long-term success of the program.

As described in the next section, CARB can significantly limit the scope of its enforcement actions by holding capped entities responsible for the integrity and legitimacy of any offset credit purchases, enabling rights of recovery from other responsible parties, and requiring buffer pools/insurances mechanisms. A buffer pool or insurance mechanism to address the risk of reversals within the host state can reduce the risk to capped entities.[5]

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[5] See Cortez, R. et al. 2010. A Nested Approach to REDD+ Structuring effective and transparent incentive mechanisms for REDD+ implementation at multiple scales. The Nature Conservancy and Baker & McKenzie. Arlington, VA.

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However, if CARB deems that it is necessary for AB 32 regulations to limit credit enforcement activity to the private sector, CARB should consider other ways to create incentives for jurisdictions to decrease emissions rates. CARB should explore options with jurisdictions to determine if credit revenue sharing (generated through private sector engagement) and/or revenue from buffers established by jurisdictions to serve as insurance would be sufficient incentives to implement jurisdiction-wide programs and accounting structures to reduce overall emissions.

CARB should place primary liability for offsets on capped entities and facilitate additional risk mitigation measures (i.e., buffer pools and insurance) to alleviate enforcement and liability risk for CARB and the private sector

Entities that are capped pursuant to California's cap and trade program should hold first in line responsibility for the validity of offsets, international or otherwise. Through regulation they should be provided the right of indemnification, so that they may recover damages from offset providers where appropriate. Holding the capped entities responsible for international offsets is consistent with other environmental pollution laws (e.g., the Comprehensive Environmental Response, Compensation and Liability Act) and creates an incentive for capped entities to perform due diligence with respect to offsets they purchase. It enables California, and the public by extension, to ensure that reductions are achieved effectively and efficiently as the State can pursue legal actions within California against the capped entity instead of seeking enforcement in other countries, which may be lengthy and costly. Such an approach can also help alleviate enforcement risks for CARB that may be associated with the issuance of credits to jurisdictions, as discussed in the previous section.

In the cooperative agreement with other states or countries, California should seek to include provisions that help capped entities pursue and recover damages for offset transactions that result in invalid offsets. These provisions should include the establishment of insurance mechanisms and buffer pools that minimize risk and liability. The establishment of a trust within jurisdictions to absorb credit liability, as described in the EDF and CI comments may also minimize credit liability and enforcement risks and should be explored.

Once again, TNC commends CARB for its continued efforts to implement AB 32 and incorporate forest carbon projects and REDD into its cap and trade program. We look forward to providing additional input on the above issues as CARB considers the design of a REDD program.

Contacts: Michelle Passero, mpassero@tnc.org and Rane Cortez, rcortez@tnc.org